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## EUPHYDRYAS EDITHA GUNNISONENSIS, A NEW SUBSPECIES FROM WESTERN COLORADO

## F. MARTIN BROWN

Fountain Valley School, Colorado Springs, Colo. 80911

For some years I have had a modest series of Euphydryas editha from the western slope of Colorado. It is quite distinctive and at first glance gives the impression of an orange-fulvous and yellow butterfly. It is sporadically common at the type locality in the Atriplex-covered land between Owl Creek Pass road and Cow Creek in the northeastern part of Ouray County, Colorado. Scott Ellis tells me that he has found it elsewhere in the Gunnison River drainage in similar terrain.

## Euphydryas editha gunnisonensis, n. ssp.

MALE: Radius of the left forewing, 19.0 mm. Upper side: forewing — the outer third of the wing from the margin inwardly is patterned with a narrow, continuous, orange-fulyous marginal band basad of which are two rows of vellow spots set in a broad, blackish-brown band that is almost wholly taken up with the yellow spots. The fringe is black at the tips of the veins and vellow between them with the black and yellow portions subequal. There is a broad, sinuous, orangefulvous median band. Costad of M1 and in cell Cu2 this band is yellow or strongly tinged with yellow. There is a narrow dark bar apicad and parallel to the discocellular veins. Between it and the cell it is vellow crossed with black on the veins. The cell is vellow with two large blocks of orange-fulvous, one terminal, and both margined with black. The base of the cell is black with scattered yellow scales. In cell Cu2 basad of the median band there are: a nebulous dark patch; a yellow patch; a black-margined orange-fulvous patch and a dusky basal patch dusted with vellow scales.

Hindwing — Moving inward from the margin to the cell there are: a narrow fulvous band basally edged with black; a series of sublunate yellow spots edged with black; a broad postmedian orange-fulvous band, and, a slightly narrower yellow median band. Rows of dark scales on the veins partly dissect the median bands. Posteriorally the basal part of the wing is black with traces of a yellow patch in cell Cu<sub>2</sub>. Anteriorly it is orange-fulvous with two yellow patches in the cell separated by a blackish rectangular patch. The fringes are as on the forewing.

FEMALE: Radius of the left forewing, 20.8 mm. Upper side: marked essentially as is the male with the markings somewhat less crisp and the submarginal rows of yellow spots on the forewing somewhat invaded with fulvous. Underside: as on the male.

HOLOTYPE: a male, Owl Creek Pass road 2 miles east of Colo. 550, near Ridgeway, Ouray County, Colorado, 7000 feet above sea level, 9 June 1965. Collected by F. M. Brown.

ALLOTYPE: a female, same data as the holotype.

PARATYPES: 10 males and one female with the same data as the holotype; 10 males from the type locality taken on 2 June 1966; one female, Canyon Creek, west of Ouray, Ouray County, Colorado, 8000 feet above sea level, 10 June 1962; two males and two females at the junction of East Dallas Creek road and Beaver Creek road, 2 miles south of Colo. 62 west of Ridgeway, Ouray County, Colorado, 7400 feet above sea level, 4 June 1966. All of the paratypes were collected by F. M. Brown. The types and paratypes are deposited at the American Museum of Natural History, New York, N.Y., except for one pair of paratypes given to Dr. Cyril F. dos Passos.

One of the paratype males from the lot that supplied the holotype has the forewings somewhat crippled. Another one is aberrant with the apical half of the forewing essentially yellow.

The radius of the left forewing of 20 males from the type locality was measured and the data treated statistically. One of the males proved to be a dwarf with the dimension 15.3 mm. When it is included, the mean radius for the series is 18.01 mm. with a standard deviation of 0.83 mm. If the dwarf is excluded, the mean radius is 18.23 mm. and the standard deviation 0.55 mm.

When gunnisonensis is compared with the several closest occurring subspecies of editha it is found to much lighter than lehmani from Mount Wheeler, Nevada, and to have much more boldly developed rows of light spots in the submargin of the forewing. When compared with the other Rocky Mountain forms of editha, to which gunnisonensis is most closely allied, it is found to be more brightly colored and to have generally larger yellow spots. As might be expected it is closer to alebarki Ferris from Carbon and Albany counties, Wyoming, on the eastern side of the Continental Divide. As Ferris indicated in his original description alebarki is distinctly darker than gunnisonensis while also being distinctly lighter than either montanus McDunnough or hutchinsoni McDunnough.

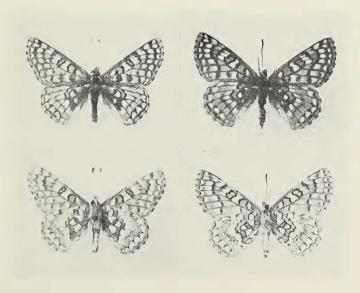


Fig. 1.—Euphydryas editha gunnisonensis, holotype (left) and allotype right.